Claims

1. Light aeroplane of the ultra light class and sport plane category, that means with a maximum take-off weight (Maximum Take-off Weight MTOW) each of 452.5kg to 590 kg according to the regulation with engine arranged at the nose with tractor propellers and cabin cell arranged behind it with a width for two passenger seats arranged side by side, **characterized in that** the cabin is designed to be so large, that a virtual, flat cabin bottom is defined in it, over which remains a free orthorhombic space with a length of at least 190 cm, a width of at least 45 cm and a height of at least 40 cm, which allows the reception of a person lying on a stretcher (26).

2. Light aeroplane of the ultra light class and sport plane category according to claim 1, **characterized in that** along the aeroplane longitudinal axis a central tube (1) of at least 200 mm diameters extends as a chassis, and in that a square profile (12) passes edgeways transversely under this central tube (1) which is connected with it rigidly against torsion and arranged in a non-positive way, in which the square profile (12), seen by the frontside gable shaped shock strut tubes (22.23) are supported for the main landing gear, as well as at its back side an upward protruding tube bend (11) extending over the length of the square profile (12) is fixed with its ends, which is edged in the front by a U-shaped border profile (34) of plastic in the cross section, which defines the back door frame and the local external outline of the cabin, and that above the square profile (12) the level of a virtual plane cabin bottom is defined, that extends transversely over the square profile (12), in which the free remaining space above this virtual bottom presents an orthorhombic space with a length of at least 190 cm, a width of at least 45cm and a height of at least 40 cm and thus makes possible the reception of a person lying on a stretcher (26).

3. Light aeroplane of the ultra light class and sport plane category according to claim 2, **characterized in that** the tube bend (11) is obliquely backward inclined and extends along the inner wall of the cell, whose above fixed doors (47) laterally are annexed to the tube bend (11) and its border profile (34) with its back border, above having a width of at least 100 cm and on the height of the upper side of the central tube (1) having a width of at least 120 cm, as well as at their lower edge, which lies on the height of the lower side of the central tube (1), having a width of at least 95 cm, so that a stretcher (26) with a length of 190 cm, a leg area with a length of 90cm having a width of 30 cm and after a 20 cm long bevel having a adjacent upper body area of a width of 45cm in horizontal position oblique-angled sliding with foot side obliquely ahead in front side into the cabin and hereafter sliding under swivelling into the final position in the cabin, in which it is retractile parallel to the central tube (1) besides the same.

4. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 3, **characterized in that** the lower side of the end zones of the square profile (12)

are each braced by at least one tube strut (13) leading obliquely backward to the central tube (1).

5. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 4, **characterized in that** the fuel tank (25) is arranged behind the square profile (12) and extends in its width over the length of the square profile (12), comprising on its upper side a recess in the area of the central tube (1) for the reception of said tube and in case of attendance of tubing struts (13), which lead from the lower side of the square profile (12) obliquely toward the backside to the central tube (1), having accordingly framed recesses in the fuel tank bottom, with which it remains on the transverse struts (13).

6. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 5, characterized in that on the front side of the square profile (12) in flight direction at least on its left side extend two frontward pointed supporting rails (29) extending parallel one towards the other, which are braced by means of oblique struts (30) downwards to the front side (33) of the square profile (12) and on which supporting rails (29) a seat (31) is guided in a lock-up manner by means of carriages in several positions.

7. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 6, **characterized in that** the tank (25) is a container produced in the vacuum process at an external negative form consisting of warm deformed carbon fibre reinforced plastic with a capacity of at least 80 to 120 litres.

8. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 7, **characterized in that** behind the square profile (12) at the central tube (1) an electrical rope capstan (51) with electric motor and angle gear box is arranged, in order to retract the rope of a rope way for dragging gliders.

9. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 8, **characterized in that** the motor mount (2) is a welded tube construction with four thread sleeves (24) directed parallel towards each other and frontward, defining the edges of a trapezium, in order to screw on the motor (35), which sits over the front end zone of the central tube (1), and that has a charge air cooler arranged behind the motor mount (2).

10. Light aeroplane of the ultra light class and sport plane category according to one of the claims 2 to 9, **characterized in that** it is conceived as single-seater for a gliding trailer, an additional tank being mounted on the pilot's seat on the opposite side of the central tube (1).